

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N9/88 A01K67/027 A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C12N A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	JOHNSON GILLIAN C L ET AL: "A comprehensive, statistically powered analysis of GAD2 in type 1 diabetes." DIABETES, vol. 51, no. 9, September 2002 (2002-09), pages 2866-2870, XP002246819 September, 2002 ISSN: 0012-1797 the whole document	1-22
A	PRICE R A ET AL: "A locus affecting obesity in human chromosome region 10p12." DIABETOLOGIA, vol. 44, no. 3, March 2001 (2001-03), pages 363-366, XP002246820 ISSN: 0012-186X abstract, p. 363, col. 2, Fig 1	1-22
		-/-

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

## ° Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the International search

19 February 2004

Date of mailing of the international search report

02/03/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Hoesel, H

## INTERNATIONAL SEARCH REPORT

Int'l Application No  
PCT/GB 03/05282

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BU D-F ET AL: "TWO HUMAN GLUTAMATE DECARBOXYLASES, 65-KDA GAD AND 67-KDA GAD, ARE EACH ENCODED BY A SINGLE GENE" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 89, no. 6, 15 March 1992 (1992-03-15), pages 2115-2119, XP000608332 ISSN: 0027-8424 abstract	1-22
X	WO 00 25798 A (UNIV JEFFERSON) 11 May 2000 (2000-05-11)	14
A	claims 1-22; figure 2	
X	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 20 November 2002 (2002-11-20) JUN H S ET AL: "Role of glutamic acid decarboxylase in the pathogenesis of type 1 diabetes." Database accession no. PREV200300107150 XP002246821 abstract & CMLS CELLULAR AND MOLECULAR LIFE SCIENCES, vol. 59, no. 11, 20 November 2002 (2002-11-20), pages 1892-1901, ISSN: 1420-682X	14, 20, 21
X	GENG L ET AL: "WIDESPREAD EXPRESSION OF AN AUTOANTIGEN-GAD65 TRANSGENE DOES NOT TOLERIZE NON-OBESE DIABETIC MICE AND CAN EXACERBATE DISEASE" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF USA, NATIONAL ACADEMY OF SCIENCE. WASHINGTON, US, vol. 95, August 1998 (1998-08), pages 10055-10060, XP002942662 ISSN: 0027-8424 abstract, p. 10056, col. 1, lines 1 - 32	14, 18
X	WO 98 37224 A (CHEN LI HOW ;DITULLIO PAUL (US); MEADE HARRY (US); GENZYME TRANSGE) 27 August 1998 (1998-08-27) page 8, line 18; claims 1,6,15,23	14
E	WO 02 102143 A (JAPAN SCIENCE & TECH CORP ;YANAGAWA YUCHIO (JP)) 27 December 2002 (2002-12-27) abstract	20, 21

## INTERNATIONAL SEARCH REPORT

Final application No.  
PCT/IB 03/05282

### Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.: 14, 15 (incompletely) because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
3.  Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

The additional search fees were accompanied by the applicant's protest.  
 No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 14, 15 (incompletely)

Present claims 14 and 15 relate to compounds defined in terms of the screening process by which they may be obtained ("reach-through claims").

The claims cover all compounds having this characteristic or property to interfere in the binding reaction provided by the screening system, whereas the application provides support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds, i.e. GAD65 (anti-)sense nucleic acids. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define a compound by reference to its function, which does not allow to deduce even the basic structural characteristics of a said compound. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the compounds as defined on p. 9, lines 4 - 25 of the description.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 03/05282

Patent document cited in search report	Publication date		Patent family member(s)		Publication date
WO 0025798	A 11-05-2000		CA 2350212 A1 EP 1135113 A1 JP 2002528509 T WO 0025798 A1 US 2003060436 A1		11-05-2000 26-09-2001 03-09-2002 11-05-2000 27-03-2003
WO 9837224	A 27-08-1998		AU 6184298 A EP 0973934 A1 JP 2001512976 T US 6528699 B1 WO 9837224 A1 US 2003213003 A1		09-09-1998 26-01-2000 28-08-2001 04-03-2003 27-08-1998 13-11-2003
WO 02102143	A 27-12-2002		JP 2003088272 A WO 02102143 A1		25-03-2003 27-12-2002